

We Claim:

1. A co-crystal of mammalian Glucokinase and a ligand bound to an allosteric site of the Glucokinase, wherein

the co-crystal has unit cell dimensions of:

a and b are from about 79 Å to about 80.2 Å;

c is from about 318 Å to about 325 Å;

$\alpha$  and  $\beta$  are 90°; and

$\gamma$  is 120°;

and the co-crystal has P6(5)22 symmetry.

2. A crystal of mammalian Glucokinase, wherein

the crystal has unit cell dimensions of:

a and b are from about 79 Å to about 80.2 Å;

c is from about 318 Å to about 325 Å;

$\alpha$  and  $\beta$  are 90°; and

$\gamma$  is 120°;

and the crystal has P6(5)22 symmetry.

3. A process for co-crystalizing mammalian Glucokinase and an allosteric ligand of Glucokinase, the process comprising:

providing a buffered, aqueous solution of about 9 to about 22 mg/ml the mammalian Glucokinase;

adding a molar excess of the allosteric ligand to the aqueous solution of mammalian Glucokinase; and

growing crystals by vapor diffusion using a buffered reservoir solution of about 16% to about 25% PEG, about 0% w/v to about 30% w/v glucose and about 8 to about 10 mM DTT, wherein the PEG has an average molecular weight of about 8,000 to about 10,000.

4. The process of claim 3, wherein the step of growing crystals by vapor diffusion comprises:

streaking the buffered, aqueous solution of mammalian Glucokinase with added allosteric ligand on a surface to form an elongated droplet of protein solution, and

streaking about an equal amount of the buffered reservoir solution across the elongated droplet of protein solution, forming a combined droplet shaped like the letter 'X'.